

BRAZILIAN TEXAS

March - 2012

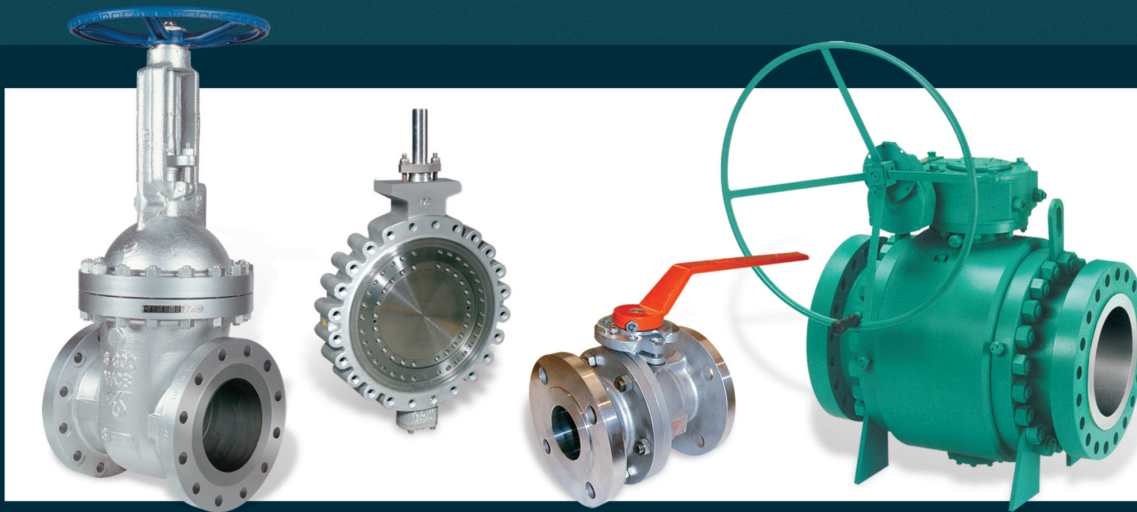
THE MAGAZINE FOR BUSINESS - SOCIAL LIFE - NEWS - POLITICS



Houston Mayor Annise D. Parker leads a delegation on a Trade and Economic Development Mission to Brazil

HOUSTON, TEXAS

Smart Solutions. Powerful Products.



The Forum™ Family of Valve Products

DSI® Valve

Forged, Cast, Stainless Steel
and Pressure Seal
Gate, Globe and Check Valves

PBV® Valve

On and Offshore Trunion
and Flanged Floating Ball Valves,
API 6D Check Valves, Subsea Valves
and Severe Service Ball Valves

ABZ™ Valves & Controls

High Performance Butterfly Valves,
Actuation Products and
Automation Accessories

Quadrant® Valve & Actuator, LLC

Threaded, Sealwelded, Maintenance
Design, Multi-Port and Flanged Floating
Ball Valves, Butterfly Valves, Actuators,
Gear Operators and Accessories

Forum™ Energy Technologies supplies one of
the most comprehensive range of quality valve
products in the industry through our family
of trusted valve brands.

Forum™ brands manufacture valves, actuators
and related products and services for the Oil & Gas,
Petrochemical, Power, Mining, Biofuels and other industries.

Forum™ brand companies provide the technologies,
proven valve solutions, delivery and support capabilities
to ensure your project's success. FET is committed to
providing unmatched product reliability and
performance to customers worldwide.



VALVE SOLUTIONS

12735 Dairy Ashford Road Stafford, Texas 77477 USA
281.340.5400 [m] 800.256.6193 [tf] 281.340.5499 [f]
www.f-e-t.com

FORUM ENERGIA, TECNOLOGIAS, EQUIPAMENTOS E SERVIÇOS Ltda.

Barra Trade V, Av Luiz Carlos Prestes,
180 / 3º andar, Barra da Tijuca, RJ, CEP: 22775-055
+55 21 2112.4753 [d] +1 713 370.1813 [d]
+55 21 8814.5922 [m]

Copyright © FORUM ENERGY TECHNOLOGIES, INC.
All rights reserved • FET_BRAZIL_AD_0212

In this Issue

Petrobras starts production in ultra-deep waters in the U.S. Gulf of Mexico



P. 14



1/3/2012-Production started at the Cascade field through the Cascade 4 well, which is connected to the FPSO BW Pioneer

P. 12

MISSION TO BRAZIL

2012 City of Houston Economic Development

March 24 - April 1, 2012

HEADLINE: P. 6

Mauro Vieira

Ambassador Mauro Vieira is a career diplomat, having held several positions at the Brazilian Ministry of External Relations, including Chief of Staff to the Secretary-General and Chief of Staff to the Minister of External Relations.

HEADLINE: P. 16

Paulo Balochini

After 32 years, I am glad for having opportunities to work in major projects in Brazil, North America, Europe, West Africa and Far East on offshore platforms, floating production and drilling facilities and also in refinery, petrochemical and chemical plants.

Editorial

P.5

Visit of the Ambassador of Brazil to Houston

P.6

Interview: Paulo Balochini

P.16

Vip: Debora Balochini

P.23

Interview: Steve Clark

P.24

New pre-salt discovery in

Campos Basin

P.26

Petrobras breaks records for daily, monthly and annual delivery of gas to the market in 2011

HEADLINE: P. 11

Annisie D. Parker

It is my pleasure to extend a warm and personal invitation to join me, the Greater Houston Partnership and the Brazil-Texas Chamber of Commerce on the City of Houston Economic Development Mission to Brazil, which I will be leading March 24 to April 1, 2012.

HEADLINE: P. 22

Steve Clark

Arup is a global engineering firm of about 10,000 staff worldwide. The last time I checked, we had 92 offices in over 40 countries. Our firm was started in 1946 by a British gentleman of Danish descent named Ove Arup.

P. 20



“Overlooked Industry Best Practices in the BP Macondo Gulf of Mexico Disaster Lead to More Regulations”

The first African-Descent Brazilian female Judge



HEADLINE: P. 14

Petrobras

The Cascade 4 production well was drilled and completed in Lower Tertiary reservoirs (formed between 23 and 65 million years ago), a promising offshore exploration frontier which is located at a depth of about 8,000 meters in the Gulf of Mexico.

HEADLINE: P. 25

New pre-salt discovery

The discovery took place during drilling of the prospect unofficially known as Pão de Açúcar, in block BM-C-33. The discovery well is located at a water depth of 2,800 meters and is 195 kilometers off the coast of the state of Rio de Janeiro.

Quality, Flexibility and Dependability like no other!



smar

Make sure SMAR participates in your Process Automation Project

YOU WILL BE SURPRIZED!

SMAR International Corporation
6001 Stonington Street , Suite 100
HOUSTON, TX 77040

www.smar.com
sales@smar.com



smar learning center

system
302



MODBUS



Editorial



Our handshake seals our commitment towards friendship and mutual respect



Personally I served the City of Houston for 17 years, and now I enjoy the fruits of many years of labor and joy to serving our community for so many years.

My soul and mind are dedicated to grow this publication as a vehicle to open the doors and windows to expose the Brazilian culture and the business opportunities between the United States and Brazil. Our mission and goal are to focus on this longstanding and fruitful relationship involving industrial, medical, cultural, and educational exchange opportunities.

We were honored with the visit of the Brazilian Ambassador to Houston, Texas when he expressed his vision and highlighted business opportunities involving both countries. Special emphasis needs to be given to the bridge building visit to Brazil scheduled for the Mayor of the City of Houston, Annise D. Parker, accompanied by a select group of local businessmen.

Besides the diplomatic activities and business development visits outlined above this issue also discusses long and short term projects in an interesting interview with Mr. Clark of ARUP America.

The article covering the construction plans and developments for the Brazilian high speed train projects in Brazil highlights the technological advances, benefits and execution challenges.

Petrobras' business accomplishments in the Chinook Area are very significant. Petrobras recently reported that on Feb. 25, 2012, it commenced production at the Cascade field through the Cascade No. 4 well, interconnected to the BW Pioneer FPSO. The Cascade 4 production well was drilled and completed in reservoirs of the Lower Tertiary geological period, which is a promising exploratory maritime boundary of the Gulf of Mexico, at a vertical depth of around 26,247 feet (8,000 meters). The BW Pioneer is the first FPSO to produce oil and gas in the U.S. portion of the Gulf of Mexico, and has the capacity to process 80 thousand barrels of oil and 500 Mcm/d.

We continuously strive to ensure our magazine is providing interesting, relevant and informative articles to both Texan and Brazilian business development interests providing pleasant articles for the reader to have a pleasant and productive reading time to ultimately promote an enjoyable life.

Sergio Lima



Editor - in - Chief

Sergio Lima

Brazil Representatives

Sergio Luis

Sergio@braziliantexasmagazine.net
Rio das Ostras

Leandro Lima

Leandro@braziliantexasmagazine.net
Rio de Janeiro

Mexico Representative

Jobell Lima

Jobell@braziliantexasmagazine.net
Guadalajara

Special Contribution

Valter Aleixo

Otto Fanini

Bia Hamann

Steve Clark

Joe Rondan

Raulina Dathe

Cover

Joe Rondan

Photos

Doris Santos

Email:vidabrasil@hotmail.com
sergio@braziliantexamagazine.net
19335 Cypress Peak Ln.
Katy, Tx-77449

(713) 505 0120

Members of Brazilian Press
International Association



Phone: 954.548.5626
info@abiinter.

VISIT OF THE AMBASSADOR OF BRAZIL TO THE UNITED STATES

Congratulations BRATECC



Following a visit to the University of Oklahoma, where, among other activities, he opened a seminar on urban development in Brazil, the Ambassador of Brazil to the United States, Mr. Mauro Vieira, completed a two day visit to the City of Houston, on the 1st and 2nd of February.

During his stay at the energy capital, Ambassador Vieira was honored with a reception by the Brazil-Texas Chamber of Commerce (BRATECC) when he spoke to an audience of 100 BRATECC members about the commercial relations between Brazil and the United States, as well as the new window of opportunities of foreign investments and joint ventures in Brazil. He was also invited by Rice University to lecture on the United States-Brazil Relations in the 21st Century, at the James Baker III Hall. The Brazilian Ambassador to the USA gave an overview on topics of mutual interest like foreign policy, environment, science and technology, trade and investment and energy, among others. Mr. Vieira also spoke on the program "Science Without Borders", a large scale nationwide scholarship program primarily founded by the Brazilian federal government to strengthen and expand the initiatives of science and technology, innovation and competitiveness through international mobility of undergraduate and graduate students and researchers.



Ricardo Peduzzi, Mario Saad and Mauro Vieira

The program also encourages the visit of highly qualified young researchers and Senior Visiting Professors to Brazil. Ambassador Vieira had the opportunity to meet with faculty members and Brazilian students. He was hosted by President David Leebron, with whom he had a private lunch at Wiess House. Ambassador Mauro Vieira is a career diplomat, having held several positions at the Brazilian Ministry of External Relations, including chief of staff to the Secretary-General and chief of staff to the Minister of External Relations.

F BRAZIL TO HOUSTON, TEXAS

C for the First Event 2012



Diplomacys



Andy Icken and Mauro



Sergio Lima, Mario Saade, Mauro Vieira and Andy Icken



Rui Fonseca, Mauro Vieira and Ricardo



Sergio Santos, Doris Santos, Ricardo Peduzzi, Mario Saade, Mauro Vieira and Andy Icken



Rui Fonseca and Mauro Vieira



Talent

Experiences

Wisdom

He also held directing positions at other Brazilian federal agencies as the Ministry of Science and Technology (as Secretary for Managerial Modernization) and the Ministry of Social Security and Assistance (as Assistant Secretary-General) Abroad, he was posted at the Embassy in Washington, D.C. 1978-1982, the Mission to the Latin American Integration Association (ALADI) in Montevideo 1982-1985; the Embassy in Mexico City. Mr. Vieira holds a BA in law from the Federal University of Rio de Janeiro and graduated from the "Instituto Rio Branco", the Brazilian academy of diplomacy. He has been decorated by the governments of Brazil, Argentina, Chile, Peru, Mexico, Portugal, Spain, France, Denmark, Norway, the Netherlands, Poland and Romania.



The First African -Descent Brazilian Female Judge

Luislinda Valois

Luislinda Valois became the first black woman to become a judge in Brazil in 1984. Born in the northeastern state of Bahia, a state with a 70% black majority, Valois was a 9-year old girl when her school teacher told her that she should stop studying in school so that she cook feijoada* in the homes of white people. In Bahia and Brazil in general, black women are stereotyped as domestic servants, cooks and Carnival dancers. But instead of taking her teacher's statement to heart, this statement fueled Luislinda's determination. She earned her law degree at the age of 39 and for six years would live and work in Curitiba, Paraná, in the south of Brazil as municipal attorney, deputy chief and chief of the National Department of Roads and Railroads (DNER). Becoming the first black female judge in Brazil in 1984, she has won numerous awards and honors for her tireless dedication to the defense of black people and the oppressed. Despite the gains of Afro-Brazilians in the past few decades, Valois laments the small numbers of black lawyers and doctors, and a lack of black ministers and ambassadors in Brazil. She believes that those who still don't believe in the existence of racism need to be black for 24 hours, thus, as a Brazilian and a black woman, "one of the themes that enthuses (her) the most is to speak about blackness in order to open the mind of Brazilians." In 2009, she released her first book, *O negro no século XXI* (The Black in the 21st Century) detailing

the current situation of black people in education, work, social justice, public policy and sports and in 2010, she won the prestigious Claudia award in the category of Public Policy.

*Feijoada is a national cuisine in Brazil made with black beans, beef and pork, usually served over white rice. The origins of feijoada are a source of controversy. While some say that the dish was a legacy of Brazil's black slaves creating a meal based on the scraps that their slave masters disregarded. Others believe that the dish has Portuguese origins and still others believe it was inspired by the French cuisine known as cassoulet. **The Claudia award was created by the women's magazine Claudia to recognize the conquests of women that dream, achieve and transform the lives of Brazilian people. 15 finalists compete for awards in the five categories of science, business, social. Has established itself as a great celebration of feminine strength in Brazil, besides being a project signed by the magazine that is the absolute leader in its segment in the country and Latin America. In all, the prize has dedicated 70 women, including Fernanda Montenegro, Mayana Zatz, Luiza Helena Trajano and Nicette Bruno.

<http://movimentonegrodepelotas.blogspot.com/2011/10/primeira-juiza-negra-no-brasil-e.html>

INTERVIEW

Federal Judge of the Court of Bahia



*Judge
Luislinda Valois*

(TJ-BA). At the regular meeting held on Tuesday (6), in Brazilian, the National Judicial Council (CNJ) has determined that the judge Bahia Luislinda Valois was promoted to the position of federal judge of the Court of Bahia (BA-TJ). The CNJ main argument used as the criterion of seniority for granting promotion. The rapporteur of the case, Jorge Chaves Helio de Oliveira, and all other directors have decided unanimously in favor of the application.

It is recognition of the struggle of a black woman, a Rastafarian, who managed to emerge victorious in this process. It is a victory for black people of Bahia," said Luislinda, Brazil's first black judge.

How did Your Honor become a judge?

I was in Curitiba and came here on vacation. I found out about the contest from the newspaper "The Afternoon", my father bought one day. I said, that's it, it is now. The next day I registered, and took the test. Later, one evening, the phone rang, and a woman informed me that I had been approved. I woke up half "Curitiba" right? (Laughs). Being the first black judge in Brazil gives me great responsibility. Through this day, we only have two black ministers in the higher courts. Why is that? Intelligence is not privy to one race. In fact, there is only one race, the human race. Being a judge is not difficult; Just have common sense; study morning, noon, afternoon, and night, plus enjoy dealing with people. A judge cannot assume that just because an individual is delinquent, he deserves to be locked up automatically. One needs to first investigate the reasons why such individual became delinquent. Our society chooses who will become delinquent. Furthermore, at this moment, society chose the young black person from the suburbs. When comes time to condemn, if one is not sure who is guilty, condemn the Negro, even if he still is in the mother's womb. Earlier you said that just because an individual is delinquent it does not mean he

automatically deserves to be locked up. However, society expects answers from everybody. Society does not cooperate in order to keep people from reaching the point of delinquency.

What should society do?

Give opportunities. First of all, provide long term quality education. Just imagine the parents of eight or ten children, find themselves one morning without bread to feed their children, if they don't have a much leveled head, they will do something stupid.

Have Your Honor ever faced a case such as this? How did you act?

Yes I did. It was in the interior of the state, and I decided as follows: I went to the city's mayor and got a job as a gardener for the man. My sentence was that he would have to pay for what he took with his first salary. After that, I have never heard of this individual committing any illegal action again. I am always saying: If a blonde woman and I find ourselves in a situation where something disappears, it is always assumed that I took it. It is always the black person who takes the blame.

In your work as a judge, do you still experience prejudice?

I am the seventh longest serving judge in the state, but I have never been called to the higher court. I feel deprecated. I am certain, that I should have been a federal judge for a long time; I have all the qualifications needed. If you want to know what racism is, just be black for 48 hours. One time, in Piata's court, I took some time to do some paperwork when an attorney walked in the court asking: "Is the judge coming today?" I signaled the assistant not to say anything about my identity. The Attorney went on and on complaining about judges never being on time, and other miscellaneous. When it came the time for the hearing, I went up to the podium, and put on my robe. When the lawyer saw me, she was so embarrassed she could not get anything done. I had to postpone the hearing as I said to her: "Be patient, go on and take some lemon balm tea, tomorrow we will continue".



Annise D. Parker

Mayor City Of Houston



Mayor Annise Parker is a second generation native Houstonian. She attended Rice University, graduating with a Bachelor of Arts Degree. In the private sector, Ms. Parker spent 20 years working in the oil and gas industry, including 18 years with Mosbacher Energy Company. She also co-owned a retail bookstore for 10 years.

Mayor Parker is Houston's 61st Mayor and one of only two women to hold the City's highest elected office. As the City's chief executive officer, she is responsible for all aspects of the general management of the City and for enforcement of all laws and ordinances.

Parker has spent many years in service to the people of Houston, with six years as a City Council member and six years as City Controller. She is the only person in Houston history to hold the offices of council member, controller and mayor.

During Mayor Parker's first term in office, the Houston area added more than 125,000 private sector jobs and the City's direct economic development efforts resulted in more than \$650 million of new investment. She bucked the trend of most other major U.S. cities by balancing two City budgets during tough economic times without raising taxes or having to eliminate police or firefighter jobs.

Parker's other first term accomplishments include passage and implementation of Rebuild Houston, a comprehensive street and drainage improvement program that will provide jobs for Houstonians for years to come, adoption of a long-term financial plan that ensures the stability of the City's water department, and reorganization of City departments to achieve cost savings and more efficient operations. She created a new City department focused on the needs of neighborhoods and the Office of Business Opportunity to help minority and women-owned small business enterprises compete for City contracts. Additionally, she won City Council approval of a Historic Preservation Ordinance that, for the first time, provides real protection for historic properties in 19 City-designated historic districts and she issued one of the most comprehensive non-discrimination orders in the nation.

Mayor Parker has been the recipient of numerous awards during her career, including the 2011 Guardian of the Bay Award from the Galveston Bay Foundation, Scenic Houston's 2010 Scenic Visionary Award and the 2010 Guardian of the Human Spirit Award from the Holocaust Museum Houston.

Despite her duties as mayor, Ms. Parker remains active in the Houston community, currently serving on the boards of the Texas Environmental Research Consortium and Houston Galveston Area Council, and as an advisory board member of the Holocaust Museum, Center for Houston's Future and Montrose Counseling Center.

Parker and her life partner Kathy Hubbard have been together for more than 20 years and are advocates for adoption, with two adopted daughters and a son.



MISSION TO BRAZIL

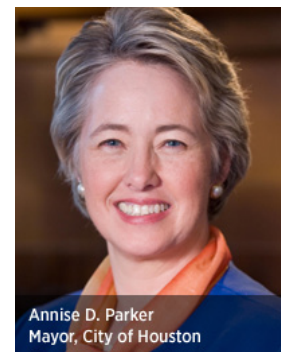
2012 City of Houston Economic Development

March 24 - April 1, 2012

Greetings,

It is my pleasure to extend a warm and personal invitation to join me, the Greater Houston Partnership and the Brazil-Texas Chamber of Commerce on the City of Houston Economic Development Mission to Brazil, which I will be leading March 24 to April 1, 2012.

In recent years, Brazil has emerged as one of the world's most dynamic marketplaces and one of Houston's largest trading partners. Brazil's emerging leadership across a variety of sectors present a number of compelling synergies with Houston's diverse economic base: energy, transportation/logistics, construction/engineering, medicine, education and high tech enterprises. The purpose of this mission is to capitalize on these synergies, expand business opportunities for Houston companies in Brazil, increase opportunities for investment in Houston, and establish strong, friendly ties between Houston and key counterparts in Brazil, especially within the cities of São Paulo and Rio de Janeiro.



Annise D. Parker
Mayor, City of Houston

The delegation we are building will consist of high-level executives from Houston's leading sectors. Our carefully planned itinerary will deliver numerous opportunities for you to promote your respective business agendas with the panoply of government, business and nonprofit officials you will meet, each of whom will share with you their unique perspective on developments in Brazil's dynamic marketplace.

By joining our delegation, you (or your designee) will help raise global awareness to Houston's dynamic and strong economy, and to the outstanding opportunities for trade and foreign investment that Houston has to offer.

I look forward to your participation and support. See you in Brazil!

Sincerely,

Annise D. Parker
Mayor, City of Houston

MISSION TO BRAZIL

2012 City of Houston Economic Development

March 24 - April 1, 2012

Join Mayor Annise Parker as she leads a delegation of Houston companies on a Trade and Economic Development Mission to Brazil.

Organized by the Greater Houston Partnership and with the support of the Brazil-Texas Chamber of Commerce, this mission will focus on providing access, opportunity and information to South America's largest and most dynamic economy: Brazil. Select attendees encompassing all of Houston's leading economic sectors will join the mayor for high-level visits with government, industry and business leaders in São Paulo and Rio de Janeiro.

WHY BRAZIL

Larger than the contiguous United States with a population of 900 million and a GDP of approximately \$2.1 trillion, Brazil provides a wealth of opportunities for Houston companies in a wide range of sectors, including: energy, engineering, medical, education (technical training) and logistical industries.

- Nearly 800 Houston companies report doing business with Brazil
- Brazil ranks as Houston's 4th largest international trade partner
- \$11.3 billion in trade between Houston and Brazil in 2010
- Significant business opportunities associated with the 2014 FIFA World Cup and 2016 Summer Olympics
- Colossal opportunities associated with the pre-salt oil and gas discoveries

WHEN

March 24 - April 1, 2012

WHERE

- São Paulo (major business hub in Brazil)
- Rio de Janeiro (energy capital and base of 2014 FIFA World Cup and 2016 Summer Olympics)

COST

Basic package: \$4,500

3 nights-stay in São Paulo and 5 nights-stay in Rio de Janeiro at 3.5/4.0 star hotels (single occupancy), intra-Brazil air, and ground transportation.

Full package: \$6,420

Basic package plus round-trip economy air fare with United Airlines from Houston to São Paulo and Rio de Janeiro to Houston.

Sponsorship opportunities available.

Space is limited. Delegates will be registered on a first-come, first-served basis.

WHAT

- High-level visits with government, industry and business leaders
- Trade and economic briefings in both cities intimately familiarizing delegates with the unique trends shaping the Brazilian economy
- Networking opportunities including business meetings, events and receptions

Join us for this exciting mission and help us represent Houston business excellence to one of the world's most promising market places!

TO LEARN MORE...

To learn more about this mission and for registration, please contact GHP Director of the Americas, Javier Jativa at jjativa@houston.org or 713-844-3635.



P O L Y G O N
A E R O S P A C E



About Polygon Aerospace

Polygon Aerospace is an internationally recognized distributor of aircraft fasteners with almost three decades of experience in servicing the aerospace manufacturing and maintenance industry. Polygon has assembled an extremely diverse inventory of parts specialized primarily in the support of Airbus and Embraer fleets. Our inventory is one of the most complete in the world when it comes to these two fleets. We have compiled an extensive network of manufacturers and suppliers over the years so that the "hard to find" products are no longer "hard to find" at Polygon.

Following the growth trend of Airbus and Embraer fleets around the world, Polygon Aerospace has also expanded its facilities at its headquarters in Houston as well as started a manufacturing facility in Sao Jose dos Campos, Brazil – home of the Embraer regional aircraft plant. This development has further strengthened Polygon Aerospace's position as one of the leading suppliers of fasteners for the Embraer jet families.

Contact Us :
Polygon Aerospace, Inc.
3800 Brittmoore, Suite 100
Houston, TX 77043
713-996-0800
713-690-6693
713-690-6694



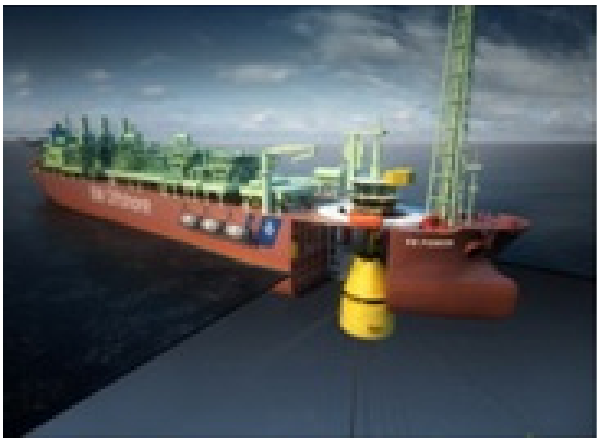
Petrobras



Starts production in ultra-deep waters in the U.S. Gulf of Mexico

Petrobras announces that on February 25, 2012, production started at the Cascade field through the Cascade 4 well, which is connected to the FPSO BW Pioneer (a Floating, Production, Storage and Offloading vessel platform), located approximately 250 kilometers off the coast of the State of Louisiana in water depths of 2,500 meters in the U.S. Gulf of Mexico.

This is the first FPSO to produce oil and gas in the U.S. Gulf of Mexico, and it is capable of processing 80,000 barrels of oil and 500,000 cubic meters of gas per day and of storing 500,000 barrels of oil. The vessel is fitted with a detachable mooring system that allows it to sail to sheltered areas during hurricanes and storms, providing security to both the crew and to the environment as well as preserving equipment.



The Cascade 4 production well was drilled and completed in Lower Tertiary reservoirs (formed between 23 and 65 million years ago), a promising offshore exploration frontier which is located at a depth of about 8,000 meters in the Gulf of Mexico. This well is connected to the vessel platform by means of a system composed of subsea equipment and lines, in





Congratulations Petrobras Works

FPSO BW Pioneer have operations in Cascade Field, in Gulf of México

in addition to free-standing risers (vertical production lines). The oil will be transported to land on shuttle tankers, and the gas through pipelines. Petrobras is the first company to develop an oilfield in the Gulf of Mexico using these technologies, which are systematically and successfully applied in Brazil. The Cascade development project was implemented in

compliance with Petrobras' Safety, Environment, Energy Efficiency and Health guidelines, which will continue to be faithfully enforced throughout the production phase which is now beginning.

CREDITS: PETROBRAS NEWS AGENCY

INTERVIEW



Paulo Balochini

General Manager

What is your professional background?

I graduated in BS Civil Engineering in 1982 by Faculdade de Engenharia de Araraquara. I started working at the age of 20 as trainee at Setal Lummus Yard in Niteroi, in the fabrication of modules for the first platforms for Campos Basin in the beginning of the offshore industry in Brazil.

After 32 years, I am glad for having opportunities to work in major projects in Brazil, North America, Europe, West Africa and Far East on offshore platforms, floating production and drilling facilities and also in refinery, petrochemical and chemical plants.

After 25 years working for Lummus Organizations and one year with Chevron, I joined in 2007 UTC Engineering Services LLC, company subsidiary of the Brazilian (UTC Engenharia), and current working as General Manager of the American Branch with office located in Houston.



***UTC Engineering Services LLC
Houston, Texas***

Tell us about your business

UTC Engenharia is one of the top engineering & construction contractors in Brazil. Today the company is being very active working for Petrobras in fabrication of offshore production and drilling facilities, shipbuilding activities (conversion and new building), refineries expansion. Beside those, UTC has a significant presence in the mining and steel mill, power and nuclear plants.

Recently, UTC Participacoes acquired Constran, one of the major players in the heavy construction in Brazil, with significant experience in construction of power plants, highways, rail roads, subways, bridges, terminals, ports and airports, and today working aligned with UTC Engenharia to expand the group portfolio of capabilities.

The heavy investments in oil & gas and infrastructure projects planned for the next years in Brazil create a unique situation of opportunities for the Brazilian contractors. The companies in the UTC group are prepared to contribute to these challenges and have a significant share of this market.

INTERVIEW

Paulo Balochini

UTC Engineering Services in Houston is responsible to identify opportunities in other part of the globe, and also providing support for the operations in Brazil in areas of technologies, engineering solutions and supply of equipment

Do you think sources of energy are the solution for the present problems with the environment?

I think we still have a long path for the green energy to be in conditions to gradually replace the conventional energy sources available today (oil, gas, coal, nuclear).

Of course, energy cost is one of major drivers and shall be affecting the customer decision process. Here in US, we can buy energy from green source but price is significant higher.

Unfortunately, the recent accident in Japan, created an international trend against nuclear plants (existing and future), anyway I think with current technology, these plants can be build much more safer and efficient in all aspects.

Recently, I had opportunity to access some current technologies for alternative biofuel and a very interesting solar power plant. They are coming; it will take some decades to change the matrix.

Tell us about your a relationship with Brazil.

I am working for a Brazilian company, then it is a very close relation and part of my attribution here is to find solutions for the projects and business opportunities in Brazil and specifically in the oil & gas segment. I have no doubt Houston is the best location to find those.

Given the political environmental in Washington, what do you think the outlook for economy is for 2012?

I think this is a tough question, considering this is an election year. Anyway, I think the economy is gradually improving since 2009, therefore the American people still unsatisfied with the receiver speed, and still high level of unemployment, I have no doubt this is the major challenge President Obama has to solve. Besides the economical difficulties, the political situation is worst, unfortunately both parties are involved in nonsense fights, instead to concentrate efforts to find and negotiate good policies for the American people.

In complementation to your question, it is normal to have in election year investments on hold awaiting the elections result and government policies to be in effect.

Texas has a USD 27 billion deficit for this fiscal year, how do you think this gap is going to be addressed?

I am not familiar with the details about the Texas economy, but I think Texas has some major advantages compared with another states (California, Michigan, Arizona), of course the draught in 2011 may have impact in the future numbers.

Regarding the deficit, I think there is no magic formula: need increase taxes and/or cut expenses, considering we are under a Republican Governor, I am sure the state will cut expenses.

Is the job situation for the State of Texas likely to improve?

My understanding the job indicators in Texas are better than the majority states around the country, of course each state has different business segments with different repercussions due to the crisis.

Overall in Texas, some segments suffered a big impact with the 2008 crisis: new home construction, shrinking the amount of car dealers, major stores close-out, etc.

Energy is, without questions, the main driver of the Texas economy, and the oil price trend, new oil & gas shale developments in west Texas, and huge oil & gas services and manufacturing demands create a very favorable economic impact in the state.

Can you give us your view on the stock and bond markets?

This is another trickquestion, but I have no doubt the world economy is much more integrated and sensitive for changes in a non isolated manner. Today, any variation like: economic situation in Europe, nuclear situation in Iran and political and economical repercussions, China growth, American economy recovery and, of course, the BLOC can directly affect the market.

In addition, I have a perception part of investors drive the decision process by emotion (buy or selling) and provide opportunities for entities and investors, which drive investments "in short terms gain".

Finally, the market had a fantastic recovery since 2008 but may be affected by bad news in the different locations in the globe.

What do you think about Brazil's current economic situation and what would be the prospects for the future?

No question the economic situation is very good, driving for the huge growth in the internal market, and blessed by the pre-salt discovery and respective developments, infrastructure investments required for the World Cup and Olympic Games. The exporters are having some difficulties due to the exchange rate making our goods and products more expensive.

INTERVIEW

I believe this bubble has an expiration date and at that time the country will need to be prepared to compete for other markets and allow that, it will be required from government and significant changes in the regulations and policies (taxation, labor laws, bureaucracy, etc).

For other aspects, it is very sad to see, under this favorable economic moment, that the government is not promoting any improvements in the educational, healthcare system, housing projects with minimum infrastructure (water, sewage, electricity, roads) and easy access and timely response from the judiciary.

In summary, I think the moment is good but the country must review and modernize the laws, tributes and regulations to adequate and prepare our industry, goods and services to compete internationally in a free market.

Tell us about the power and position of Brazil in the world.

In my view the political strength of Brazil today is directly associated with growth of the Brazilian economy.

I think it is a matter of time to have Brazil in the UN Safety Council as a permanent member. Regarding the international policy, I think it is a big mistake and does not reflect the aspirations of the Brazilian people the positions taken by Brazil regarding countries like Venezuela, Iran and Cuba.

President Dilma shifted a little bit in relations to Iran, but omitted to talk about human rights on this recent trip to Cuba.

Finally, with a strong economy, a population of 200 million people and major oil producer and exporter, I have no doubt that Brazil will be together with USA, Europe, China, Russia and Japan as one of the major players of the world political and economical scene.

Please provide some details about you.

I was born in Sao Paulo in 1960. I am married to Debora for 22 years. I have two sons: Gianluca and Gabriel.

We moved to Houston in 1992, spent almost one year here and moved back in 1996, We spent almost three years in Houma, Louisiana, and returned to Houston after that.

My hobbies: playing tennis, motorcycle riding and sailing

My soccer team(s) : Palmeiras and Flamengo.



14614 Falling Creek Drive

Houston, Texas 77068 – 2999 USA

Ruby Vazquez
Coordinator
info@pangea-institute.org
T: 281.781.8969



CHAMA
GAÚCHA



BRAZILIAN STEAKHOUSE

“Overlooked Industry Best Practices Disaster Lead to

Just one day before the catastrophic accident, a Monday, managers had high hopes to finish drilling the ill-fated well by that Friday. But apparently there was a push to complete the well before Friday. British Petroleum (BP) was intensively busy drilling to tap a rich oil reservoir called Macondo, the same name as the cursed town in Gabriel Garcia Marquez’s novel “One Hundred Years of Solitude.” Like in past projects BP had hired the cursed drilling rig, Deepwater Horizon, from Transocean, the largest deep-water driller. Transocean and other contractors performed most of the work, supervised by BP’s employees on the rig and in Houston. The activities surrounding the API Well No. 60-817-44169 project presented many challenges and complications to BP, its principal owner, since the start. Towards the end the well continuously swallowed expensive drilling fluid and finally violently erupted with dangerous uncontrolled gas killing 11 men and destroying and sinking the ill-fated Deepwater Horizon rig. On the day of the tragic accident, approximately 9:50 p.m. on the evening of April 20, the project was considerably over budget and behind schedule with multiple deviations from the original drilling and completion plan. A Wall Street Journal investigation report (“Unlikely Decisions Set Stage for BP Disaster” by Ben Casselman and Russell Gold, Thursday, May 27, 2010 edition) courageously provided the earliest comprehensive account of the fateful accident and incidents that preceded the destructive blast. The Macondo accident gave a deadly blow to the reputation of the Mineral Management Service (MMS). The Minerals Management Service (MMS), a division within the Interior Department, was a troubled agency long before the oil spill in the Gulf of Mexico. “... Following the spill the Obama Administration conducted the most comprehensive and aggressive reforms to offshore oil and gas regulation and oversight in U.S. history. On June 18, 2010 Ken Salazar, Secretary of the Interior (Department of the Interior - DOI), signed the order no. 3302 changing the name of the Minerals Management Service



Gulf of Mexico



(MMS) to the Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE). These reforms’ objectives are to strengthen requirements for everything from well design and workplace safety to corporate accountability. BOEMRE’s main mission is to ensure that the United States can safely and responsibly expand development of its energy resources. On September 14, 2011 the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE – U.S. Department of Interior) released the ‘Report Regarding The Causes of the April 20, 2010 Macondo Well Blowout’



(<http://www.boemre.gov/pdfs/maps/dwhfinal.pdf>) Surprisingly this report contained a detailed account of the facts surrounding this accident along with an analysis of the causes leading to the accident plus several industry and regulation recommendations. BOEMRE set a good example and high ethical and professional standard by delivering a fair, constructive and guiding document given the charged political atmosphere around this young government agency. Typically most tragic accidents, large and small, are preceded by a string of fateful choices, poor decisions, and questionable project steps execution.



in the BP Macondo Gulf of Mexico More Regulations”

A retrospective report by Silva Xavier

These accidents invariably occur as long, near and immediate indicators are overlooked or misinterpreted such as the increasing gas concentration in the mud column. The well project's shortcoming areas span from the reservoir and its environment characterization, well design and construction planning through the final well's drilling and completion execution.

In retrospective BP seemed to be ill-prepared to drill the Macondo well which was an exploratory well with limited offset data. Fundamental and accurate detailed knowledge of the reservoir's conditions, rock physical properties and geo-mechanical characteristics were lacking – the rock was too brittle to support the well's structure and drilling induced stresses. The design of the well had serious risk issues. BP installed a single long pipe liner anchored in a single point, made up of sections screwed together, all the way from the sea floor to the oil reservoir. This well design configuration choice, considered unusual by Petroleum Engineering experts, makes the cement job extremely critical and increasingly risky for the well construction. More conservative operators install instead an intermediary upper-well liner which can hold back the explosive leaky gas in case the lower liner loses flow control. The cementing contractor advised BP to install a certain pipe centering device configuration before pumping cement to reduce cement sealing risks what was extremely important for the success of this well design. In April 18 a cementing contractor's report warned BP of the imminent and increased well's gas flow control risk as the recommended pipe centering devices were not installed.

BP initiated the well development in October (2009) drilling with a different rig. Three weeks later natural gas leaked into the well, what is commonly called a “pressure kick” in drilling operations. Two weeks later a hurricane damaged the rig and later it had to be towed to port for repairs. BP restarted well development in January 2010 with Transocean's Deepwater Horizon, a veteran warhorse rig that had worked for

BP for many years. BP requested approval for a new drilling permit with federal regulators. BP's budget had approved spending \$96.2 million and about 78 days for drilling and completing the well. The primary target completion time was much less -- about 51 days. By April 20, the well development was in its 80th day, owing to delays like the problem detected on March 8. On this date, workers detected gas seeping into the well. Workers struggled to lower into the well a measuring device to evaluate this gas leak.

Engineers eventually recommended plugging the last 2,000 feet of the then-13,000-foot long hole with cement and continue the well by drilling around and off in a different direction. It took days to resolve this situation not counting backtracking and re-drilling attempts.

Rig lease and contractor fees cost BP about \$1 million a day. Despite all these problems, by mid-April, BP classified this well a qualified success. Until engineers in Houston could make plans and prepare production installations to start pumping hydrocarbons out, the rig workers nearly completed the well with a standard practice plugging and temporarily abandoning the well until its production starts. All these production goals were voided by the well's loss of gas flow control. Listed below are some of the multiple operational decisions and procedural activities not consistent with industry best practices (GOM deepwater) and contributors to this accident:

1. The drilling operation was dangerously pushed ahead with little or no drilling margin as the drilling mud balancing hydrostatic pressure was too close to the reservoir's rock pore pressure limit. Above this limit the formation is ruptured leading to drilling mud losses and potential blowout accidents under uncontrolled well flow conditions. The targeted hydrocarbon bearing rock was too brittle resulting in formation damage as the operating drilling mud pressure cracked it open escaping into the formation. Loss of drilling mud required for the deepwater drilling applications can

quickly become a too costly operation. Revisions to the drilling program and casing setting depths (i.e. liner anchor depth point) were made due to unanticipated differences between calculated and actual pore pressure limits. BP's decision to set the casing was based on Well integrity concerns and a potential safety issue associated with a zero drilling margin. BP decided to set casing and set the production casing string shoe in a weaker laminated sand shale interface at 18,304 feet measured depth instead of at a stronger consolidated shale strata. The likelihood of well blowout, gas flow channeling and cement contamination were substantially increased with the placement of the shoe in the weaker laminated sand-shale zone. Typically these laminated sand shale zones are not formation rocks mechanically competent to support this type of structural well anchoring operation.

2. Blowout preventers (BOP 360-ton devices) are devices installed in the top of the well in the ocean bottom which shut down well flow in the event of a well blow-out emergency. Blowout preventers are crucial devices to prevent this type of accidents. As the blowout preventers failed to prevent the accident, the blowout preventer tests data and related records acquired prior to the accident will continue to be looked at with skepticism.

3. The project execution was severely compromised as the drilling managers supervising the drilling operation lacked experience in the deepwater environment conditions. The mud logging crew missed key blowout indicators, had limited well control training and serious gaps in pressure kick detection training

4. The costly and high volume mud losses of approximately 15,500 bbls occurred during the Macondo well drilling. BP's failure to react to the massive fluid losses placing additional safeguards, such as establishing additional barriers during cementing, was a contributing factor to cause of the blowout.

A retrospective report by Silva Xavier

“Overlooked Industry Best Practices in the BP Macondo Gulf of Mexico Disaster Lead to More Regulations”

5. Hours before the accident an initial negative test on the production casing cement job was conducted by the rig crew to check the pressure sealing integrity of the well. This test showed a pressure differential between the drill pipe and the kill line (high pressure pipe leading from the BOP stack to the rig pumps) what is usually a reliable indicator that there is formation flow into the well.



The rig crew should have reacted to this serious anomaly indicating problems with the cement barrier or possibly with the negative test performed. Considering there was limited sealing structure in this well design effectively keeping the gas from rushing up to the surface, rig workers, pressed to finish the job, removed a critical well safeguard, the heavy drilling fluid known as “mud.” The mud was replaced with ocean water, a lighter fluid than the drilling “mud”, compromising the well pressure balance in this well which lacked necessary pressure seal, finally leading to the well blowout.

6. An operational investigation and training to close the crew’s knowledge and skill gap should have followed after a pressure kick went undetected for approximately 30 minutes on March 8, 2010.

7. At approximately 9:10 p.m. in the night of the accident the rig crew bypassed a critical flow meter and directed fluid displaced from the well overboard. The flow meter is a critical kick detection tool that measures outflow from the well what could have warned the crew of a potential blowout.

8. The recommended pipe centering devices were not installed along the well significantly increasing well construction and cement job performance risks. At the time of the Macondo blowout, API RP 65 contains recommended practices regarding cementing operations that were used by many operators drilling wells in deepwater in the Gulf of Mexico. Some of the steps that BP took during the cementing of the Macondo production casing were not consistent with API RP 65 recommended practices.

10. Before doing a cement job on a well, common industry practice is to circulate the drilling mud through the well, bringing the mud at the bottom all the way up to the drilling rig. This procedure, known as “bottoms up,” lets workers check the mud to see if it is absorbing gas leaking in. If so, they can clean the gas out of the mud before putting it back down into the well to maintain the pressure.



The American Petroleum Institute says it is “common cementing best practice” to circulate the mud at least once. Circulating all the mud in a well of 18,360 feet, as this one was, takes six to 12 hours, say people who’ve run the procedure. But mud circulation on this well was done for just 30 minutes on April 19, drilling logs say, not nearly long enough to bring mud to the surface. This decision could have left gas at the bottom of the well. When workers poured in cement to seal the sides, that gas would have been pushed up the outside of the well. Expanding as it rose, it would have reached the top, where it either would have pushed against a massive seal on the ocean floor or might have gone even higher and reached the bottom of the pipe connecting the well to the drilling rig.

10. On the day of the accident the rig’s general alarm monitoring gas concentration in the rig floor was set to manual mode that delayed

the evacuation response potentially costing the lives of crew members.

The MMS regulations in effect on April 20, 2010 cannot be blamed for the well blowout. BOEMRE’s September 14, 2011 accident report recommended stronger and more comprehensive federal regulations to reduce the likelihood of accidents like the Macondo blowout. The report noted that the MMS regulations in place at the time of the blowout could be enhanced in a number of areas including:

Well design, well integrity testing, kick detection and response, cementing procedures and testing, BOP configuration and testing, rig engine configuration (ignition source control), remotely-operated vehicles, emergency disconnect system, inspections programs, and BOP stack secondary system functions.



This BOEMRE’s report indicates that the adoption of the recommended regulations will improve the safety of offshore operations. Several recommended regulations have been implemented at this time. These regulations will help to reduce the likelihood of the occurrence of another tragic event similar to the Macondo blowout. Regulations alone cannot guarantee safety. Regulations to be effective need to be complemented by professional competence, ethics and integrity. Dedication fueled by an internal burning desire to deliver a job well done.



A retrospective report by Silva Xavier



Debora Balochini

Debora Selingarde Balochini was born in the capital City of Sao Paulo. She has earned degrees in BS Mechanical Engineering from FEI- Faculdade de Engenharia Industrial – Sao Paulo in 1985, Safety Engineering from PUC – Pontificia Universidade Catolica – Rio de Janeiro in 1995 and a Master’ degree in Business Administration – Finance and International Business from UST- University of St. Thomas- Houston in 2001. Since 2001, she has been working in major engineering companies for Brazil and USA, with relevant experience in oil & gas, refineries, petrochemical and chemical plants. Her experience includes, Paragon as Facilities Engineer, Bureau Veritas and Technip as Project Engineer, mostly in Offshore and Refinery projects, such as: Elf Matterhorn TLP, CAMISEA Gas Development and refineries: Conoco - Sweeny, Chevron - Pascagoula, Exxon – Billings and Beaumont, and Valero -Port Arthur. She is currently working for Forum Energy Technologies as International Sales – Valve Solutions, Brazil Accounts. While in Brazil, she worked for almost 10 years with ABB Setal Lummus in projects for PETROBRAS (Carapeba 1 & 2 Platforms – Campos Basin), Elf Aquitaine/Sonangol (Pacassa & Palanca Platforms - Angola), Matarazzo Citric Acid Plant, and an Alcoa Aluminum Plant. She moved to the US in 1996 with her family. Debora’s husband of 22 years is Paulo Balochini (General Manager for UTC Engineering, Houston). They have two sons: Gianluca (21) and Gabriel (19) and they live in Cypress, Texas. She loves sports – mainly Volleyball and Cycling. Since she was a kid she loves the game and still plays regularly for a Brazilian Master Team, where she competes in the US Open Volleyball Masters and in the World Master Games. The cycling started in Houston when she got involved with her school team, UST, to raise money for the Multiple Sclerosis Society Research and so therefore she has participated in the BP MS 150 – Houston to Austin for the past 10 years. She has also ridden in France (part of Tour de France circuit) and in Spain (route to Santiago de Compostela).



Personality

Steve Clark

leads Arup's Rail Business for the Americas Region, and is a member of the Arup Americas Transportation Executive Board, and the Arup Global Rail Executive Board. He is a Principal with 29 years experience designing, executing, and managing technical projects in the railway and electric power industries, and has served on railway projects in North America, South America, UK, Europe, and Africa, from Heavy Haul Freight to High Speed Passenger services.

INTERVIEW

Rail Business Leader, Americas Region, Arup

Tell us about Arup, and the work that Arup performs

Arup is a global engineering firm of about 10,000 staff worldwide. The last time I checked, we had 92 offices in over 40 countries. Our firm was started in 1946 by a British gentleman of Danish descent named Ove Arup. That's how we got our name. We perform engineering design services in the areas of buildings, energy and resources, and transportation. Even though people may not have heard of our company, they will recognize our products. The first one that really put us on the map was the Sydney Opera House. We conducted the structural analysis so that it could be built. Prior to that, no one had built shell structures of such complexity, most engineering firms could not have done it.

What are some of the other great projects Arup has delivered?

We did the design and engineering of the Bird's Nest Stadium in the 2008 Olympics in Beijing. We also contributed substantially to the design of the Water Cube, where all the swimming events took place. Anyone who has recently taken the High Speed Train from London to Paris would have gone through St. Pancras Station.

We master planned and designed all station renovations and the redevelopment of the area around it, as well as the rail line and all the stations to the Channel Tunnel Portal. It's quite a beautiful place to go, even if you aren't going to take a train. We've also had a leading role in the planning of the 2012 London Olympic Park.

So, what is the role of "Rail Business Leader, Americas Region"?

Arup's transportation projects fall into four areas: airports, highways, marine ports, and railways. I lead the rail part of this for North and South America. My jobs to help win and then support the delivery of those projects. One of my favorite "projects" is being the Independent Engineer for the Inter-American Development Bank on the São Paulo Metrô Line 4 operating and maintenance concession. This new line is being run by a company called ViaQuatro. I wrote an article on this in the April 2011 issue of Brazilian Texas. The first phase of the project is fully operational, and it is delivering much needed transportation to the people of São Paulo. Over 500,000 people a day use the new line, and the usage is growing.

What is your opinion of the proposed high speed train between São Paulo and Rio?

I have mixed feelings about this project. On one hand, it would be wonderful to travel between São Paulo and Rio on a high speed train like you can between London and Paris, and other European cities. It would be a great show piece for the people of Brazil and demonstrate how Brazil is really becoming a member of the world's economic powers. It is certainly something I would like design and help build. On the other hand, the cost is very high, and having spent a lot of time in Brazil, I know how much other infrastructure is needed. It might be better to spend the money elsewhere right now, and save that project for the future.

Do you see a way to phase the high speed rail project that will benefit our people?

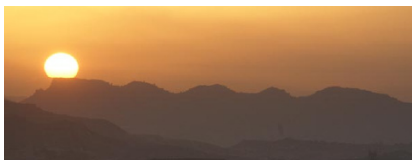
Absolutely. If you look at the demographics of the two states, Rio and São Paulo, you have a very heavy concentration of population between Campinas, São Paulo, and São Jose dos Campos.



INTERVIEW

Steve Clark leads Arup's Rail Business for the Americas Region, Arup

If you built a rail line between these three cities, connecting the airports and city centers, you would have a catchment area of about 25 million inhabitants with only 200 km of rail. To get over to Rio requires another 380 km of rail line to serve a smaller population. The anticipated ridership between São Paulo and Rio is only around 90,000 people per day. Compare that to São Paulo Line 4 and you begin to see just how expensive it is per passenger utilization. My idea is to build the first part in São Paulo, but build it to high speed rail standards. It doesn't need to be operated at high speed right now, but could be in the future. It would serve a very strong need in the São Paulo region, then once it is up and running and there is revenue coming from it, the government could start building the line from São Jose over to Rio.



That seems like a good idea. Did you ever discuss this with anyone?

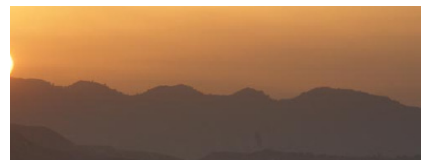
As a matter of fact, about a year ago I spoke to someone at BNDES about that idea. At the time they were not interested in considering it. They were confident that they could build the whole line. Since then, the bid process hasn't really worked out as planned, so the project isn't progressing. I think we all know how challenging things can be in Brazil!

Tell me what your thoughts are about the world economy, and how Brazil is responding to it?

Wow, that's a huge question! There is no doubt about Brazil's importance to the world economy, and it is impressive to see how much progress has been made in the 15 years since I first started doing business there.

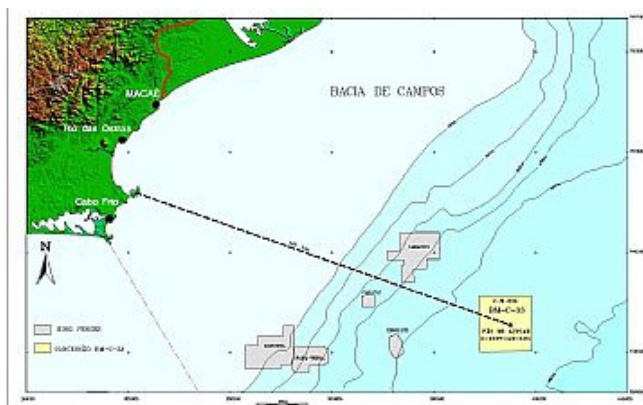


It's such a wonderful country, with great people, amazing natural resources and a huge labor pool. The middle class is growing, and the education of young people is getting better and better all the time. But there are still many great challenges, particularly for attracting foreign investment. Arup is expanding into South America, and Brazil is our priority. But we are finding that the current business climate for international companies is very difficult and complex. The tax laws, labor laws, and legal system present the greatest obstacles. My hope is that the government will reduce the number of protectionist constraints that make it hard for outsiders to do business there. If Brazil were to do that, they would see much greater growth than they already have. But convincing the politicians of this is not easy.



New pre-salt discovery in Campos Basin

Photo: PETROBRAS NEWS AGENCY



Petrobras announces the discovery of a new hydrocarbon accumulation in the pre-salt layer, in the southern area of the Campos Basin, off the coast of Rio de Janeiro.

The discovery took place during drilling of the prospect unofficially known as Pão de Açúcar, in block BM-C-33. The discovery well is located at a water depth of 2,800 meters and is 195 kilometers off the coast of the state of Rio de Janeiro. Repsol-Sinopec Brazil is the operator of the area with a 35% stake, in partnership with Statoil (35%) and Petrobras (30%). The drilled well detected a total hydrocarbon column with 480 meters in thickness, with approximately 350 meters of reservoirs. The formation test indicated a production of 5,000 barrels of oil and 807,000 cubic meters of gas per day. The consortium will conduct additional analyses in the area to confirm the extension and volume of the discovery, using data obtained from this well. The Pão de Açúcar well confirms the huge potential of block BM-C-33, where the Seat and Gávea prospects were discovered.

Petrobras breaks records for daily, monthly and annual delivery of gas to the market in 2011

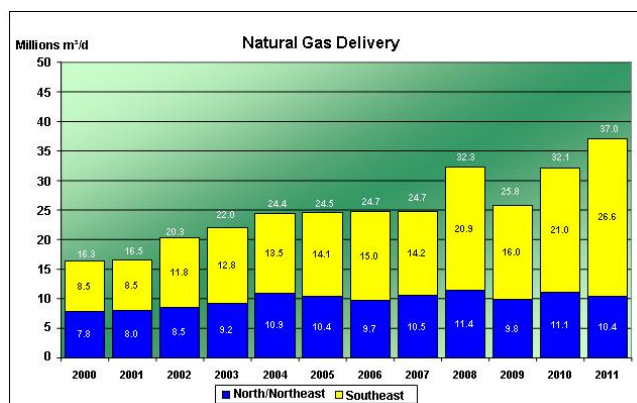
Petrobras set a new record in the delivery of natural gas to the market in 2011, reaching an annual flow of 37 million cubic meters of gas offered per day. The company also recorded new monthly and daily records: the flow offered in December of 2011 reached 42.4 million m³/d, and 46.1 million m³ were offered on the 23rd of the same month. The significant growth on the domestic gas supply observed in recent years is the result of a series of investments in the development of natural gas production projects through the (Gas Production Anticipation Plan). Under this program, several new fields began producing since 2008 in the Espírito Santo, Campos and Santos Basins, with emphasis on the non-associated gas fields of Canapu and Camarupim. The significant increase of natural gas supply in 2011



Photo: PETROBRAS NEWS AGENCY

was made possible with the start of pre-salt gas use in the Santos Basin, with the production flow from the Lula field, and the start of production from the Mexilhão and Uruguá fields, also in the Santos Basin, as well as the start of operations of (Caraguatatuba Gas Treatment Plant) the and the Caraguatatuba-Taubaté Caraguatatuba Gas Pipeline, in the state of São Paulo. In addition to Plangás,

two other important factors were critical to the observed records: the success of the – POAG(Optimization of Natural Gas Utilization Program), which allowed to improve the performance of the operating units in the Southern and Southeastern regions of Brazil, and the increase of gas delivery in the Northern region of the country for the production of thermal power.



TRAMONTINA

A Brand with a **Strategy.**

Tramontina presents strategically segmented product collections featuring a complete range of quality, styles and price points. Products are backed by domestic distribution and manufacturing, combined with superior customer service and logistics.

LIMITED EDITIONS
GOURMET
PROFESSIONAL
STYLE
SELECT
EVERYDAY



 **TRAMONTINA USA**

12955 West Airport Blvd., Sugar Land, TX 77478
(T) 800.221.7809 (F) 281.340.8410



www.tramontina-usa.com

TRAMONTINA

Tramontina's strategically segmented product collections fulfill a retailer's complete range of product, quality and pricing requirements.

The robust assortment of kitchenware items appeals to all consumers, from culinary professionals to novice cooks.

Extensive manufacturing capabilities and **Made in the USA** production, combined with in-house research, development, design and marketing departments, provide unparalleled support for retail partners.

Items are backed by a Tramontina warranty and an unsurpassed commitment to customer and consumer service.



Tramontina's growing brand has been showcased in top media channels, including NBC The Today Show, Discovery Channel How It's Made, PBS America's Test Kitchen, Consumer Reports, The Wall Street Journal, The New York Times, Cook's Illustrated, Good Housekeeping, Fine Cooking, Cook's Country and more.



12955 West Airport Blvd., Sugar Land, TX 77478
(T) 800.221.7809 (F) 281.340.8410

